

**$\Lambda(2325)$   $D_{03}$**  $I(J^P) = 0(\frac{3}{2}^-)$  Status: \*

## OMITTED FROM SUMMARY TABLE

BACCARI 77 finds this state with either  $J^P = 3/2^-$  or  $3/2^+$  in a energy-dependent partial-wave analyses of  $K^- p \rightarrow \Lambda\omega$  from 2070 to 2436 MeV. A subsequent semi-energy-independent analysis from threshold to 2436 MeV selects  $3/2^-$ . DEBELLEFON 78 (same group) also sees this state in an energy-dependent partial-wave analysis of  $K^- p \rightarrow \bar{K}N$  data, and finds  $J^P = 3/2^-$  or  $3/2^+$ . They again prefer  $J^P = 3/2^-$ , but only on the basis of model-dependent considerations.

 **$\Lambda(2325)$  MASS**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
<b><math>\approx 2325</math> OUR ESTIMATE</b>			
2342 $\pm$ 30	DEBELLEFON 78	DPWA	$\bar{K}N \rightarrow \bar{K}N$
2327 $\pm$ 20	BACCARI 77	DPWA	$K^- p \rightarrow \Lambda\omega$

 **$\Lambda(2325)$  WIDTH**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
177 $\pm$ 40	DEBELLEFON 78	DPWA	$\bar{K}N \rightarrow \bar{K}N$
160 $\pm$ 40	BACCARI 77	IPWA	$K^- p \rightarrow \Lambda\omega$

 **$\Lambda(2325)$  DECAY MODES**

Mode
$\Gamma_1 N\bar{K}$
$\Gamma_2 \Lambda\omega$

 **$\Lambda(2325)$  BRANCHING RATIOS**

$\Gamma(N\bar{K})/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	$\Gamma_1/\Gamma$
0.19 $\pm$ 0.06	DEBELLEFON 78	DPWA	$\bar{K}N \rightarrow \bar{K}N$
$(\Gamma_i \Gamma_f)^{1/2}/\Gamma_{\text{total}}$ in $N\bar{K} \rightarrow \Lambda(2325) \rightarrow \Lambda\omega$			
0.06 $\pm$ 0.02	<sup>1</sup> BACCARI 77	IPWA	$DS_{33}$ wave
0.05 $\pm$ 0.02	<sup>1</sup> BACCARI 77	DPWA	$DD_{13}$ wave
0.08 $\pm$ 0.03	<sup>1</sup> BACCARI 77	DPWA	$DD_{33}$ wave

 **$\Lambda(2325)$  FOOTNOTES**

<sup>1</sup> Note that the three BACCARI 77 entries are for three different waves.

## **$\Lambda(2325)$ REFERENCES**

DEBELLEFON 78    NC 42A 403  
BACCARI 77    NC 41A 96

A. de Bellefon *et al.*  
B. Baccari *et al.*

(CDEF, SACL) IJP  
(SACL, CDEF) IJP

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